XIV. *The Dasytinae of South Africa* (*Coleoptera*). By G. C. Champion, A.L.S., F.Z.S.

[Read April 5th, 1922.]

This paper is based upon a study of the comparatively few known S. African Dasytinae, two allied E. African insects being included for comparison. More than half of the former are referred to the genus *Pagurodactylus* Gorh., some of the species of which have the general facies of various Malachiids, thus forming a sort of connecting link between the last-named group and the Dasytids. The extensible lateral vesicles of the body are wanting in all the Dasytinae, and the males never have a claw-like superior prolongation of the second joint of the anterior tarsi such as is to be found in certain genera of Malachiids, e. g. *Attalus*, *Ebaeus*, etc. One new genus, *Dasytophasis* (Péring. in litt.) has peculiarly formed antennae in the ♂, and another, *Apterodasytes*, resembles a Staphylinid. The presence of the cosmopolitan genus *Acanthocnemus* Perris in Rhodesia, has been recorded by me in Ent. Mo. Mag., 1922, pp. 77–79.

The material examined includes that contained in the British Museum in London, and in the Museums at Cape Town and Durban, the Cape specimens having been kindly lent by Dr. Péringuey. The examples in our National Collection were mostly collected by Dr. G. A. K. Marshall, the late H. C. Dollman, and Mr. R. E. Turner, some of the last-named gentleman's captures having been received during the preparation of this paper.

The types of the S. African species named by Gorham, as well as those of a few others described by Boheman and Redtenbacher, have been examined. Three *Dasytes* diagnosed by Thunberg in 1821 remain unidentified, as well as the following insects described by Pic: *Pseudopecteropus*, type *P. nigerrimus* Pic (L'Echange, xix, p. 178, 1903), Cape Colony (this probably belongs to the Dasytinae); *P. pallidonotatus* Pic (*op. cit.* xxiii, p. 132, 1907), Dunbrody (this seems to be a *Pagurodactylus*, with a longitudinal black streak on each elytron); *Pagurodactylus donceeli* Pic (*op. cit.* xxiii, p. 132, 1907), Port Elizabeth; and *Xamerpus obscurus* Pic (*op. cit.* xx, p. 28, 1901), Zululand. *Microjulistus subconvexus*, var. *nigricolor* Pic (*op. cit.* xix, p. 179, 1903), Dunbrody, is represented by a single example in

Dr. Marshall's collection, and two others found by Mr. R. E. Turner at Mossel Bay in September 1921.

Pagurodactylus.

Pagurodactylus Gorham, Ann. and Mag. Nat. Hist. (7) v, p. 78 (1900).

This genus, type *P. vitticeps* from Natal, its Dasytiform facies notwithstanding, was referred by Gorham to the Malachiidae, and he called attention to the unequal anterior tarsal claws of the ♂ as a character not hitherto known in that group. *Pagurodactylus*, however, wants the extensible lateral vesicles of the prothorax and abdomen, and must therefore be removed to the Dasytinae, one well-known European genus at least, *Danacaea*, having unequal tarsal claws in the two sexes. The male only of *P. vitticeps* was known to Gorham; the ♀ has slender, basally-subangulate, equal tarsal claws, very similar to the lower one of the anterior pair in ♂. In this sex, moreover, the anterior tarsi are more or less thickened, with joints 1–3 obliquely produced at the apex (2 sometimes dentiform) in the typical forms, and 5, at least, nigro-setulose beneath, these short spinules or setae forming a sort of brush. The S. African forms here placed under *Pagurodactylus* differ greatly *inter se* in their general facies, the shape of the head, etc.; but they all possess the above-mentioned ♂ tarsal characters, which are sufficient to separate them from *Dasytes*, even in the wide sense adopted by European writers. Most of these insects have a short epipleural fold to the elytra, this being elongated in *P. angustissimus* Pic, but the dividing ridge is sometimes obsolete. The dentiform second tarsal joint and the elongated upper anterior tarsal claw together form a powerful grasping-organ in the ♂♂ of *P. fibulatus*, etc.

The terminal joint of the maxillary palpi is narrow, rather short, pointed at the tip.

The following table, based upon the ♂♂ only, will serve in most cases to identify the ♀♀ also.*

♂♂

1 (18). Head not or moderately rostrate.

2 (13). Upper surface pilose or with intermixed longer hairs or setae.

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* ♀♀ only known of *P. lugens* (No. 6) and *flavocinctus* (No. 11).

3 (10). Body in part or wholly black or metallic.
4 (5). Prothorax, outer margin of elytra, and legs testaceous; antennae elongate; upper claw of anterior tarsi greatly elongated . . . . . Species 1.
5 (4). Prothorax and legs in great part or wholly infuscate.
6 (9). Elytra not fasciate, immaculate or with margins testaceous.
7 (8). Elytra infuscate or black . . . . Species 2–6.
8 (7). Elytra with one or both margins testaceous . . . . . Species 7, 8.
9 (6). Elytra flavo-fasciate; legs in part or wholly infuscate . . . . . Species 9–12.
10 (3). Body in part and legs testaceous; elytra usually maculate or fasciate, rarely immaculate (sometimes piceous with the margins and apex testaceous in ♀♀).
11 (12). Antennae short, serrate, or subserrate; head enormously developed or large Species 13–17.
12 (11). Antennae relatively longer and more slender; head smaller: species small . . . . . Species 18.
13 (2). Upper surface finely pubescent, without intermixed longer hairs; elytral sculpture very fine, sericeous.
14 (15). Body uniformly caeruleous . . . Species 19.
15 (14). Body black or piceous.
16 (17). Elytra with apex testaceous; head shorter . . . . . Species 20.
17 (16). Elytra with both margins testaceous; head longer and narrower, subrostrate; prothorax trisulcate, elongate . . . . . Species 21.
18 (1). Head strongly rostrate, narrow, the post-ocular portion elongate; body metallic, the elytra testaceous at tip . . . . . Species 22, 23.

1. Pagurodactylus fibulatus, n. sp.

♀. Elongate, narrow, shining, clothed with decumbent pallid pubescence intermixed with long, erect, bristly hairs; black, the

head in front and at the sides behind the eyes, the basal joints of the antennae, the prothorax, the outer margins of the elytra, and the legs (the bases of the posterior femora excepted) testaceous or rufo-testaceous. Head rather small, much narrower than the prothorax, closely, finely punctate, the eyes small; antennae short, slender, subserrate. Prothorax convex, nearly as long as broad, narrowed anteriorly and also narrowed towards the base, very sparsely, minutely punctate, the lateral margins explanate in their basal half. Elytra much wider than the prothorax, widened posteriorly, rounded at the tip; densely, rather coarsely punctured. Anterior tarsi slender, simple.

♂. Head larger, longer, and more convex, nearly as wide as the prothorax, the eyes larger, prominent; antennae stouter, elongate, joints 1–4 and the extreme bases of the others testaceous, 5–10 elongate triangular; anterior tarsi (fig. 1) thickened, sparsely nigro-setulose beneath, joint 2 produced into a strong tooth at the apex within, the upper claw extremely long and stout, the lower one much shorter and slender.

Length 3–3½ mm.

Hab. S. Africa, Frere and Estcourt, Natal (*Dr. Marshall*: i, 1893; iii, 1896; *Haviland, in Mus. Cape Town*).

Ten examples seen, including four ♂♂. Separable from *P. vitticeps*, Gorh., by the rufo-testaceous elytral margins, prothorax, legs, and basal joints of the antennae; the longer, smoother, convex prothorax; the ♂ with a larger head, long antennae, and the upper claw of the front tarsi extremely long and stout.

2. Pagurodactylus vitticeps.

♂. *Pagurodactylus vitticeps* Gorh., Ann and Mag. Nat. Hist. (7), v, p. 79 (1900).

♂. Anterior tarsi thickened, joints 2 and 5 sparsely nigro-setulose beneath, the upper claw very long, longer and stouter than the lower one; antennae long, joints 4–10 elongate triangular.

♀. Anterior tarsi slender, the claws shorter, equal, similar to the others; antennae short, more slender, joints 4–10 about as long as broad.

Hab. S. Africa, Estcourt, Natal (*Mus. Brit.*, *Mus. Cape Town*).

The twelve specimens of this species before me include three ♀♀, the ♂ only having been known to Gorham. An elongate, narrow, shining, brassy-black, hirsute insect, with

the basal joints of the antennae in part, the head in front and along the middle, and the tibiae and tarsi testaceous; the upper surface rather coarsely punctured; the antennae elongate in ♂; the prothorax broader than long; the elytra narrowly margined.

3. Pagurodactylus cribrosus, n. sp.

♀. Moderately elongate, narrow, subparallel, shining; the entire upper surface coarsely, closely punctate (the punctures on the head very coarse and umbilicate), and clothed with long, fine, erect hairs; nigro-piceous, the anterior portion of the head and the basal joints of the antennae in part, and the basal margin of the prothorax, testaceous. Head rather short, somewhat convex; antennae very short. Prothorax about as long as broad, a little wider than the head, much narrowed anteriorly. Elytra moderately long, much wider than the prothorax, narrowly margined, the spaces between the coarse punctures smooth. Anterior tarsi slender.

♂. Narrower, the front of the head, the antennae, and tarsi paler, the legs a little stouter; antennae longer; eyes more convex; anterior tarsi thickened, joint 2 distinctly produced at the apex within, 5 sparsely nigro-setulose beneath, the upper claw longer than the lower one.

Length $2\frac{2}{3}$–3 mm.

Hab. NATAL, Malvern [♂] and Umgeni [♀] (*Dr. Marshall*: vi, vii, 1897).

One pair. Separable from *P. circumcinctus* Redt. and other allied forms by the coarse puncturing of the upper surface, particularly of the head, and the subparallel shape in the two sexes, the elytra entirely infuscate.

4. Pagurodactylus angustulus, n. sp.

♂. Elongate, narrow, slightly widened posteriorly, shining, clothed with fine pubescence intermixed with long, soft, erect hairs; aeneo-piceous or brassy-black, the basal joints of the antennae, tibiae, and tarsi sometimes in part, testaceous; the head and prothorax somewhat coarsely and rather closely (except a narrow smooth space down the middle of the disc of the latter in some specimens), the elytra densely, rugosely, punctured. Head about as wide as the prothorax, moderately long, bi-impressed in front and foveate on the vertex; antennae moderately long, rather slender. Prothorax convex, longer than broad, narrowed in front and behind, the lateral margins not prominent. Elytra wider than the prothorax, elongate. Anterior tarsi slightly thickened, joints 3 and 4 (as seen in profile)

acutely produced at the inner apical angle, 5 nigro-setulose beneath, the upper claw longer and a little stouter than the lower one.

♀. Antennae shorter; elytra more widened posteriorly.

Length 2½–3 mm.

Hab. S. Africa, Table Mountain (*Dr. Marshall*), Constantia Nek and Rondebosch (*E. B. Poulton*).

Found in abundance by Dr. Marshall and Prof. Poulton in August 1905. This insect agrees in some respects with the description of *P. donceeli* Pic (1907), type from Port Elizabeth; but the latter is said to have the head long and narrow, the prothorax smooth on the disc, and the body broader than in *P. angustissimus*, a definition that will not apply to *P. angustulus*. *P. donceeli*, moreover, is stated to have the facies of certain species of *Attalus* near *Pectcropus*, instead of that of a narrow *Dasytes*, for which *P. angustulus* might easily be mistaken.

5. Pagurodactylus funereus, n. sp.

♂. Elongate, narrow, shining, clothed with fine greyish pubescence intermixed with long, erect, blackish, bristly hairs; black, the basal joints of the antennae (except joint 1 above) testaceous, the legs piceous; the head and prothorax sparsely, finely, the elytra densely, rugulosely punctate. Head oblong, rather convex, narrower than the prothorax, triangularly depressed between the eyes and bisulcate in front, the eyes somewhat prominent; antennae short, moderately slender. Prothorax as long as broad, convex, narrowed anteriorly, transversely grooved behind the anterior margin, sulcate along the sides posteriorly, and foveate in the centre at the base, the lateral margins reflexed. Elytra long, much broader than the prothorax, a little widened posteriorly, narrowly margined. Anterior tarsi thickened, nigro-setulose beneath, the upper claw long and rather stout, the lower one short, slender, toothed near the base beneath.

♀. Head narrow, the eyes not prominent; elytra longer and more rounded at the sides beyond the middle.

Length (with head) 2⅘–3½ mm.

Hab. S. Africa, Malvern, Natal (*Dr. Marshall, Mus. Cape Town* and *Mus. Durban*: iv, 1897; iv, v, 1898).

Two ♂♂ and one ♀. This insect has the general facies of a small narrow *Dasytes;* but no *Dasytes* has the anterior tarsal claws of ♂ formed as in *P. funereus*, which is certainly congeneric with *P. vitticeps* Gorh., the latter having a shorter prothorax, long antennae in ♂, etc. *P. circumcinctus* has the antennae formed as in *P. funereus*. Compared with

P. (*Attalus*) *lugens* Gorh. the present species is larger, the margins of the prothorax are more reflexed towards the base, and the setae are longer.

6. Pagurodactylus lugens.

♀. *Attalus* (?) *lugens* Gorh., Ann. and Mag. Nat. Hist. (7), vii, p. 357 (1901).

Hab. S. Africa, Salisbury, Rhodesia.

Four specimens seen. A small, narrow, elongate, shining black insect, sparsely clothed with rather long, semierect greyish hairs intermixed with the scattered pubescence; head long, narrow, hollowed down the middle; prothorax longer than broad, very sparsely punctulate; elytra long, narrowly margined, rugulosely punctured; legs and antennae slender. *P. lugens* has somewhat the facies of *P. metallicus* (No. 19), and the anterior tarsi of the ♂ are probably similarly formed.

7. Pagurodactylus circumcinctus.

Dasytes circumcinctus Redt., Reise Novara, ii, p. 107 (1867).

♂. Anterior tarsi slightly thickened, sparsely nigro-setulose beneath, the claws unequal in length, the upper one longer than the other; antennae short; eyes convex.

♀. Anterior tarsi slender, the claws smaller, equal; eyes less prominent; body more elongate, the prothorax less transverse, the elytra much longer and widened to beyond the middle.

Hab. S. Africa, Cape of Good Hope (*type*), Cape Town and Stellenbosch (*Mus. Cape Town*), Wynberg (*Dr. Marshall*), Lion's Head, and Camps Bay (*R. E. Turner*: viii, ix, 1920), Mossel Bay, Table Mountain (*W. Bevins*).

A shining black, nigro-hirsute form, with the mouth-parts, the expanded margins of the elytra, the anterior and intermediate tibiae in part, and sometimes the antennae to near the tip, testaceous; the head and prothorax very sparsely, finely, the elytra rather coarsely, closely punctate. Less elongate and much more shining than *P. angustissimus* Pic, and clothed with intermixed long, black, bristly hairs; the head and prothorax shorter and broader, very sparsely punctate, and not sulcate; the elytra coarsely punctured, and with the expanded outer margin only testaceous. Redtenbacher describes the antennae as testaceous. The type, Dr. Holdhaus informs me, cannot now be found in the Vienna Museum. Found in plenty on Table Mountain by Mr. Bevins.

8. Pagurodactylus suturellus, n. sp.

Attalus suturellus Gorh. in litt.

♀. Elongate, narrow, depressed, shining, sparsely, finely pubescent, the elytra with intermixed, long, semierect, pallid, bristly hairs; nigro-piceous or piceous, the basal joints of the antennae in part, the basal margin or hind angles of the prothorax, and sometimes the lateral margins also, and the sutural and outer margins of the elytra, testaceous or pale testaceous; the head and prothorax sparsely, finely, the elytra rugulosely, punctate. Head narrower than the prothorax, triangularly depressed anteriorly; antennae short; prothorax about as long as broad, narrowed towards the base and apex, hollowed along the sides posteriorly. Elytra elongate, much wider than the prothorax, somewhat rounded at the sides, from a little below the base, depressed along the suture, the margins prominent.

♂. Narrower and less elongate, the eyes a little more convex; anterior tarsi thickened, the upper claw much longer than the lower one; elytra relatively shorter.

Length 2–2⅘ mm.

Hab. S. Africa, Salisbury and Sebakwe, Rhodesia, Malvern and Verulam, Natal (*Dr. Marshall*: vii, 1897; viii, 1900, vii, 1910; *Mus. Cape Town; Mus. Durban*).

A common insect in Natal, and apparently undescribed. A very small, narrow, immature-looking form, resembling *P. angustissimus* Pic in colour, with a less elongate, smoother head, a shorter, non-sulcate, smoother prothorax, and more shining, hirsute elytra. The pale sutural stripe is somewhat evanescent. The head is shorter and broader than in *P. lugens* Gorh., which has the entire upper surface black. *P. suturellus* does not belong to *Attalus*, as shown by the anterior tarsal structure of the ♂.

9. Pagurodactylus coronatus.

Anthocomus coronatus Boh., Ins. Caffraria, i, 2, p. 470 (1851).

♂. Anterior tarsi rather slender, joint 5 closely nigro-setulose beneath, the claws subequal in length, slightly longer than those of the other tarsi, the upper claw a little stouter than the lower one; antennae long, slender, filiform.

♀. Anterior tarsi more slender, the claws smaller, equal; antennae short, slightly thickened towards the tip.

Length (including head when extended) 3 mm.

Hab. S. Africa, Limpopo River (*type of Boheman*), mouth of Umkomaas River, Natal (*Dr. Marshall* : ix, 1897).

Three ♂♂ and one ♀ captured by Dr. Marshall agree with Boheman's description. A narrow, shining, piceous, hirsute insect, with an oblong-oval, rather convex, deflexed, testaceo-bivittate head; prominent eyes; pallid, slender antennae; a long, rather narrow prothorax; rugose, flavo-bifasciate elytra (the second fascia apical); and testaceous tarsi. Boheman compares *P. coronatus* with *Anthocomus fasciatus* L., which differs greatly in structure from the present species.

10. **Pagurodactylus translucidus,** n. sp.

♂. Elongate, narrow, depressed, slightly widened posteriorly, shining, somewhat thickly clothed with long, erect hairs; brassy black, the basal margin of the prothorax, and the lateral margin thence to the middle, a transverse, translucid ante-median fascia on the elytra (not reaching the suture), the basal joints of the antennae beneath, and the extreme bases of the tibiae, flavous or testaceous; the entire upper surface coarsely, rather closely punctured. Head narrow, somewhat elongate, flattened anteriorly, the sides of the front raised and cariniform, the eyes prominent; antennae pilose, long, slender, joints 3–6 gradually increasing in length, 6–11 very elongate. Prothorax narrow, longer than broad, grooved along the sides posteriorly. Elytra elongate, much wider than the prothorax. Legs slender, clothed with long hairs; anterior tarsi with joint 5 nigro-setulose and thickened at the tip beneath; claws long, slightly widened in their basal half, those of the anterior pair subequal.

♀. Antennae much shorter; elytra more widened posteriorly, the fascia almost obsolete; anterior tarsal joint 5 slender to tip, the claws smaller, equal.

Length 3¼–3½ mm.

Hab. S. Africa, Mossel Bay, Cape Province (*R. E. Turner* : vii, 1921; iii, 1922).

One pair. Larger than *Dasytophasis* (*Attalus*) *albofasciatus* Gorh. (infra), the entire upper surface coarsely punctured, the head and prothorax broader, the apices of the elytra immaculate. The simple, elongate antennae, the apically-thickened, nigro-setulose terminal joint of the anterior tarsi, and the longer tarsal claws, separate *P. translucidus*, ♂, from the same sex of *Dasytophasis capicola* and *D. albofasciatus*. The anterior tarsal claws are almost

equal in length in the ♂ of the present species, which differs in this respect from the typical members of the genus.

11. Pagurodactylus flavocinctus, n. sp.

♀. Moderately elongate, widened posteriorly, shining, somewhat thickly clothed with long decumbent pubescence, intermixed on the head and prothorax with erect hairs, and on the elytra with short adpressed pubescence; brassy-black, the antennal joints 1–4, the basal, apical, and lateral margins (except towards the anterior angles) of the prothorax, knees, and bases of the tarsi testaceous, the elytra with a sharply defined, curved, transverse, ante-median fascia (not reaching the suture, but extending to the outer margin); the head and prothorax closely, conspicuously, the elytra coarsely, rugosely punctured. Head much narrower than the prothorax; antennae short, joints 8–10 transverse. Prothorax nearly as long as broad, very convex, narrowed towards the base and apex. Elytra moderately long, much broader than the prothorax, rounded at the sides posteriorly. Legs hairy.

Length $2\frac{1}{2}$–$2\frac{3}{5}$ mm.

Hab. S. Africa, Mossel Bay, Cape Province (*R. E. Turner*: iii, 1922).

Two ♀♀, recently sent with a ♀ of *P. translucidus* from the same locality. Smaller and less elongate than the last-named insect; the head and prothorax more finely punctured, the latter shorter and more convex; the elytra not so long, more closely, rugosely punctured, and with a sharply defined, non-evanescent flavous fascia.

12. Pagurodactylus flavosignatus, n. sp.

♂. Elongate, narrow, depressed, slightly widened posteriorly, shining, sparsely clothed with pallid pubescence intermixed with long, erect, blackish, bristly hairs; black, the labrum, oral organs, basal joints of the antennae, basal margin of the prothorax, tip of the abdomen, tarsi, and tibiae in part, testaceous, the elytra with a common, transverse fascia below the base (interrupted at the suture) and a transverse spot on the disc of each towards the apex, flavous; the head and prothorax sparsely, rather strongly punctured, the elytra with scattered, intermixed coarse and fine punctures, the latter becoming crowded on the pallid markings. Head rather long, nearly as wide as the prothorax, canaliculate on the vertex, the eyes prominent; antennae long, rather stout, joints 4–10 triangular,

longer than broad. Prothorax longer than broad, narrowed towards base and apex. Elytra long, much wider then the prothorax, depressed below the base, rounded at the apex, the humeri swollen. Anterior tarsi moderately thickened, joints 1 and 2 subequal in length, 4 and 5 nigro-setulose beneath, the upper claw longer and stouter than the lower one.

Length (with head extended) $3\frac{1}{5}$ mm.

Hab. S. Africa, Cape Town (*Mus. Cape Town*: xii, 1887).

Two males. Larger and more robust than *Dasytophasis* (*Attalus*) *albofasciatus* Gorh.; the head less elongate, and strongly punctured; the antennae long and rather stout; the ante-median fascia of the elytra interrupted at the suture, the apical fascia replaced by a transverse subapical spot. The present species has the general facies of an elongate, spotted *Anthicus*.

13. **Pagurodactylus cephalotes**, n. sp. (Fig. 2.)

♂. Elongate, shining, clothed with pallid decumbent pubescence intermixed with very long, black, erect, bristly hairs; testaceous or rufo-testaceous, the head (except at the base and in front), the outer joints of the antennae, the elytra with a basal and a post-median fascia, connected along the suture, and sometimes a small spot on the disc near the apex, and the metasternum, to a variable extent, black, the elytral markings in some specimens evanescent. Head extremely large and broad, nearly twice the length of the prothorax, arcuately swollen on each side behind the eyes and obliquely narrowed thence to the base, transversely bi-impressed in front and longitudinally excavate at the middle of the vertex, coarsely, rugosely punctured, smoother in front and at the base; eyes convex; antennae short, stout, the joints comparatively broad, 6–10 strongly transverse. Prothorax small, strongly transverse, much narrower than the head or elytra, obliquely narrowed behind, very sparsely, minutely punctate, grooved behind the anterior margin, the lateral margins reflexed. Elytra long, subparallel in their basal half, rounded at the tip; closely, rather coarsely punctate, with coarser setigerous punctures intermixed. Anterior tarsi stout, sparsely nigro-setulose beneath, joint 2 produced into a strong tooth at the apex within; the upper claw long, simple, the lower one shorter and more slender, angulate near the base, similar to those of the other tarsi.

♀. Head entirely or to near apex, the antennae (except the basal joints beneath), the prothorax with an interrupted transverse space

before the middle in one specimen, the elytra (except at the tip), and the bases of the femora, black; head short, small, coarsely, rugosely punctured, bi-impressed in front; antennae much more slender; elytra widened posteriorly; legs more slender, anterior tarsi simple, the claws equal.

Length 3–3½ mm.

Hab. S. Africa, Salisbury (*Dr. Marshall*: ♂♀; *J. O'Neil*, in *Mus. Cape Town*: ♂) and Hope Fountain, Rhodesia (*Neville Jones*: ♂); Estcourt, Natal (*Dr. Marshall*: ♂♀).

Seven ♂♂ and two ♀♀, the former varying in the development of the black markings on the head and elytra, the ♀♀ with a small head and the elytra black to near the tip. This is one of several closely allied S. African forms, the females of which are scarcely separable one from another.

14. Pagurodactylus marginipennis.

?*Attalus marginipennis* Ab. de Perrin, Rev. d'Ent., xix, pp. 164, 175 (♀) (1900).

Type, ♀. Prothorax with an oblong black streak on the disc anteriorly; elytra black, the outer margins narrowly, and the apex broadly, testaceous.

Var. ♂. Very like *P. cephalotes*, more thickly pubescent, the intermixed blackish hairs shorter, softer, and more numerous; the elytra with a common, broad nigro-piceous patch extending from the base to far beyond the middle, the dark space hollowed at the sides anteriorly (appearing dilated at the base and apex). Head less developed, about as wide as the prothorax, densely, moderately coarsely punctate, unimpressed on the vertex; antennae short, rather slender, as in *P. cephalotes*, ♀. Prothorax relatively broader, somewhat closely punctured. Elytra more densely and not so coarsely punctate. Anterior tarsi and claws as in *P. cephalotes*.

♀. Head small; antennae shorter; anterior tarsi slender, simple.

Length 2½–3½ mm.

Hab. S. Africa, Makapan, N.E. Transvaal (*type of Abeille de Perrin*: ♀), Bothaville, Orange Free State (*Dr. Brauns, in Mus. Cape Town*: I, iii, 1899: ♂♀).

The description of the sexual characters, etc., is taken from two ♂♂ and one ♀ from Bothaville; the latter differs from the type of *P.* (*Attalus*) *marginipennis*, Ab. (lent me by Dr. Péringuey), in having the infuscate portion of the elytra less extended and the median streak on the prothorax

obsolete. Another ♀, from Pretoria (*Bucknill*), with the dark markings on the elytra reduced to a small humeral spot and an incomplete post-median fascia, may belong to the same species (?). Till males of *P. marginipennis* are obtained from the type-locality, the identification of that sex of the species must remain in doubt. A Bothaville ♂ has been retained for the British Museum collection.

15. **Pagurodactylus nigrosetosus,** n. sp.

♂. Very like *P. cephalotes*; the elytra testaceous, the puncturing sparser and a little stronger, the black setae very long; the head not wider than the prothorax, obliquely narrowed from the eyes backward, the cavity on the vertex broad and very deep, the puncturing not so coarse; the antennae slender (as in ♀ *P. cephalotes*); the elytral puncturing coarse and rather diffuse; the anterior tarsi similarly formed.

Length 2½–3½ mm.

Hab. S. Africa, Frere, Natal (*Dr. Marshall*: iii, 1896).

Four males, varying in the development of the head, the latter without trace of the rounded tumid space behind each eye, and the cavity on the vertex broader and deeper.

16. **Pagurodactylus debilis,** n. sp.

♂. Moderately elongate, shining, clothed with fine pubescence intermixed with erect, black, bristly hairs; testaceous, the head in part, the outer joints of the antennae, a patch on the prothorax, a narrow, basally-widened, sutural stripe on the elytra extending from the base to near the apex (sometimes dilated posteriorly into a large patch or entirely obsolete), and metasternum, black or piceous; the head and elytra closely, the prothorax very sparsely, minutely, punctate. Head barely as wide as the prothorax, smoother in front, feebly foveate on the vertex; antennae a little longer and stouter than in ♀. Prothorax transverse, rounded at the sides. Elytra subparallel. Anterior tarsi thickened, joint 2 dentate at the tip within, the upper claw longer and stouter than the lower one.

♀. Head small; antennal joints 6–10 transverse; elytra widened posteriorly; anterior tarsi slender.

Var. Elytra piceous, with the sides and apex only testaceous (♀).

Length 2½–nearly 3 mm.

Hab. S. Africa, Howick, Natal (*J. P. Cregoe*, in *Mus. Brit.* and *Mus. Cape Town*).

Eight ♂♂, eight ♀♀. Whether this form should be considered more than a race of *P. nigrosetosus* is doubtful:

the puncturing of the elytra is closer and not so coarse; the setae are finer; and the ♂ wants the very deep excavations on the vertex; The prothorax and elytral markings are more or less evanescent or variable; the dark variety (♀) from the same locality has the elytra coloured as in the same sex of *P. cephalotes* and *P. marginipennis*, from which it is separable by its smaller size and shorter antennae.

17. **Pagurodactylus angulatus**, n. sp.

♂. Elongate, narrow, shining, clothed with fine pubescence intermixed with long erect hairs; the head (except in front), prothorax (the basal margin, and the lateral margins thence to the middle excepted), two fasciae on the elytra (basal and post-median), which are connected along the suture, a transverse subapical spot, and the metasternum, piceous, the rest of the body, antennae (except joint 1 above), and legs testaceous; the prothorax densely, finely, the head and elytra more coarsely, punctured. Head rather large and convex, as wide as the prothorax, obliquely narrowed behind the eyes, the latter prominent; antennae short, rather stout. Prothorax nearly as long as broad, angularly dilated at a little before the middle. Elytra wider than the prothorax, subparallel. Anterior tarsi thickened, joints 2 and 5 nigro-setulose beneath, the upper claw a little longer and stouter than the lower one.

♀. Head smaller, short; antennae shorter, darker and more slender; elytra widened posteriorly, testaceous, with a broad, basally and apically dilated, piceous sutural stripe extending from the base to near the tip, the dilated apical portion rhombiform.

Length 2½ mm.

Hab. S. Africa, Piquetberg (vi, 1886: ♂), Strand (vii, 1887: ♀) (*Mus. Cape Town*).

One pair. A diminutive form of *P. cephalotes*, with a laterally-angulate, densely punctured, testaceo-marginate, piceous prothorax; the elytra fusco-bifasciate in ♂, and with a basally and apically dilated dark sutural stripe in ♀. The ♀ has been placed in the British Museum.

18. **Pagurodactylus fenestratus**, n. sp.

♂. Moderately elongate, narrow, shining, clothed with scattered pallid pubescence intermixed with long, erect, blackish, bristly hairs; testaceous, the antennae usually with joints 7–9, 1 at the base above, and 11 at the tip, a transverse patch on the vertex, a spot on the prothorax, two fasciae on the elytra (basal and submedian, the latter broad, neither reaching the lower outer margin),

and a transverse curved subapical spot (sometimes wanting), these markings connected along the suture, infuscate or black; the head and prothorax sparsely, finely, the elytra closely, strongly, rugulosely punctate. Head (with the convex eyes) about as wide as the prothorax, canaliculate on the vertex; antennae moderately long, slender. Prothorax convex, nearly as long as broad, narrowed in front and behind, sharply margined. Elytra broader than the prothorax, somewhat rounded at the sides from a little below the base and feebly dilated posteriorly, the margins prominent. Anterior tarsi slightly thickened, joint 5 nigro-setulose beneath, the upper claw a little longer and stouter than the lower one.

♀. Head narrower than the prothorax, the antennae shorter and paler; elytra much widened posteriorly.

Var. Elytra infuscate, the lateral margins and apex only testaceous (♂).

Length $2\frac{1}{10}$–$3\frac{1}{4}$ mm.

Hab. S. Africa, Mossel Bay, Cape Province (*R. E. Turner*: iv, 1921, iii, 1922).

Seventeen examples, including eight ♂♂. A small, shining, setose, testaceous insect, the elytra with dark fasciae, which are coalescent along the suture and sometimes united into a large patch, leaving the margins and apex only pale. The ♀ is extremely like a small *Attalus*; the ♂ has the anterior tarsal structure of *Pagurodactylus*.

19. **Pagurodactylus metallicus,** n. sp.

♀. Elongate, narrow, slender, widened posteriorly, subopaque, very finely, sparsely pubescent; caeruleous, the antennae (the partly testaceous basal joints excepted) and legs piceous; the entire upper surface extremely finely alutaceous (appearing dull and sericeous), the elytra with very fine scattered punctures. Head oblong, rather narrow, triangularly depressed anteriorly, the eyes not prominent; antennae rather short, slender. Prothorax much longer than broad, a little narrowed anteriorly, hollowed along the sides posteriorly and also in the middle at the base. Elytra elongate, wider than the prothorax, narrowly margined, rounded and convex at the tip. Legs long and slender; anterior tarsi not thickened; tarsal claws small, equal.

♂. Anterior tarsi somewhat thickened, the upper claw longer and stouter than the lower one; head broader, the eyes convex; antennae slightly longer.

Length $2\frac{1}{2}$–3 mm.

Hab. S. Africa, Malvern, Natal (*Mus. Brit.*; *Mus. Durban*: viii, 1897, vii, 1901), Sebakwe, Rhodesia (*Mus. Cape Town*).

Nine specimens seen, including four ♂♂ and a pair "in copula." A slender, caeruleous, rather smooth, subopaque insect, not unlike *P. lugens* Gorh. in size and shape, with inconspicuously punctured longer elytra, the head similarly triangularly hollowed anteriorly. There are various similarly coloured Dasytids in Japan and New Zealand.

20. Pagurodactylus disjunctus.

Anthocomus disjunctus Boh., Ins. Caffraria, i, 2, p. 471 (♀) (1851).

Pagurodactylus apicalis Pic, L'Echange, xx, p. 66 (♂♀) (1904).

♂. Anterior tarsi thickened, sparsely nigro-setulose beneath, the upper claw very long, much longer and stouter than the lower one, which is subdentate near the base; antennae moderately long, rather slender.

♀. Anterior tarsi slender, the claws small, equal, similar to the others; elytra more widened posteriorly; antennae a little shorter.

Hab. S. Africa, River Limpopo (*type of Boheman*), Mouth of Umkomaas River and Malvern, Natal (*type of Pic*; *Dr. Marshall*: ix, x, 1897), Zululand (*ex coll. Fry*).

Not rare in Natal. An elongate, subopaque, nigro-piceous insect, with the head in front, and along the middle, and an apical patch on the elytra (extending a short distance forward along the suture), rufotestaceous; the antennae and the anterior legs in part testaceous; the puncturing of the upper surface extremely fine and close; the vestiture fine and sericeous, without longer hairs intermixed; the prothorax as long as broad, feebly canaliculate anteriorly; the elytra narrowly margined. Boheman, whose type has been lent me by Dr. Sjöstedt, does not allude to the structure of the tarsal claws, which are described by Pic. The antennae are comparatively short and slender, and very different from those of *P. vitticeps* Gorh.

21. Pagurodactylus angustissimus.

♀. *Pagurodactylus* (?) *angustissimus* Pic, L'Echange, xxiii, p. 131 (1907).

♂. Anterior tarsi rather stout, nigro-setulose beneath, the claws long, unequal in length, the upper one longer and stouter than the lower one; antennae very little longer than in ♀.

♀. Anterior tarsi slender, the claws shorter, equal, similar to those of the other tarsi.

Hab. S. Africa, Cape Town (*F. Purcell*), Port Elizabeth (*Mus. Cape Town* and *type of Pic*), Lion's Head, Rapenburg, and Camps Bay (*R. E. Turner*: viii–x, 1920), Table Mountain (*W. Bevins*).

A very elongate, narrow, posteriorly-widened, depressed, sparsely pubescent, subopaque insect; black, with the sutural and outer margins of the elytra, the basal joints of the antennae in part, the anterior and intermediate tibiae, and sometimes the basal margin or hind angles of the prothorax, testaceous; the head long, narrow, subrostrate, sulcate down the middle, and finely punctured; the prothorax long, narrow, deeply trisulcate, closely punctate; the elytra densely, finely punctulate, with prominent outer margins, and the epipleura reaching to the base of the abdomen. Apparently a common species at the Cape.

22. **Pagurodactylus rostralis,** n. sp.

♀. Very elongate, depressed, narrow, widening to near the apex, shining, finely pubescent, with longer bristly hairs intermixed; black with a bluish or green lustre in certain lights, the mandibles and a patch at the apex of the elytra testaceous; the head and prothorax very sparsely, finely, the elytra rugulosely punctured. Head strongly deflexed, very long and narrow, rostrate, sulcate between the eyes, the latter rather small and inserted at about the middle of the sides; antennae short, joints 1 and 2 short, equal. Prothorax longer than broad, narrowed anteriorly, sulcate down the middle (the groove terminating in a transverse depression before the base) and with a deep marginal furrow extending down the basal half. Elytra elongate, much wider than the prothorax, arcuately dilated posteriorly and with the margins explanate from about the middle to near the apex, the epipleura short.

♂. Anterior tarsi simple, slightly thickened, joints 3 and 4 short, the upper claw very long, the lower claw shorter and more slender and with a narrow free membranous lobe beneath; terminal ventral segment with a very deep fovea in the middle behind.

Length (excl. head) 2½–3 mm.

Hab. S. Africa, Howick, Natal (*J. T. Cregoe; Mus. Cape Town*), Pretoria (*L. M. Bucknill*).

Nine examples seen. This species, owing to its long, narrow, rostrate head (suggestive of that of the American genus *Tanaops*), should perhaps be removed to a separate genus; but it is connected with the typical forms by *P. angustissimus* and *P. metallicus*. The present insect has the general facies of a Malachiid.

23. Pagurodactylus masaicus, n. sp.

♂. More elongate and larger than *P. rostralis*; nigro-aeneous or black, the testaceous apical spot on the elytra extending forward at the sides to about the middle and also for a short distance up the suture; the head and prothorax less shining, densely alutaceous, and sparsely, minutely punctate, the head equally elongate, the prothorax relatively longer, the elytral margins in ♀ more broadly explanate in their apical half, the anterior tarsi of ♂ as in *P. rostralis*.

Length (with head raised and extended forward) 3½–4 mm. (♂♀).

Hab. E. Africa, Mau, Masai Reserve (*Capt. A. O. Luckman*: 7. i and 4. iii, 1914).

One ♂, two ♀♀. A form of *P. rostralis* requiring a distinctive name.

Dasytophasis, n. gen.

Dasytophasis Péringuey, in litt.

Very near *Pagurodactylus* Gorh. (*lugens, angustulus*, etc.); anterior tarsi slender in both sexes, narrow, joints 1 and 2 longer than 3, the claws small, not elongated or unequal in ♂, feebly subangularly widened near the base; antennal joints 5 and 6 or 5 only dentiform in ♂, simple in ♀; elytral sculpture unequal; lateral vesicles wanting.

Type, *D. capicola*.

This genus was named long ago by Dr. Péringuey, but not described, though both sexes were found by Raffray near Cape Town, and specimens given by him to the Cape Town Museum. It cannot be included under *Pagurodactylus* as defined by Gorham.

The ♂ of *D. capicola* has joints 7–11 of the antennae elongated, and 5 and 6 together forming a grasping-organ; that of *D.* (*Attalus*) *albofasciatus* Gorh., which must be included in the same genus, has these organs short in both sexes, and the fifth only dentiform.

1. Dasytophasis capicola, n. sp.

Dasytophasis capicola Péringuey, in litt.

♂. Elongate, very narrow, slightly widened posteriorly, clothed with fine scattered pubescence intermixed with very long erect hairs, these latter extending to the tibiae also, the antennae (in fresh specimens) pilose; brilliant brassy-black or aeneo-piceous, joints 1–5 (or 1 and 2 only) in part testaceous, the legs sometimes fuscous; the head and prothorax very sparsely punctured, the latter rugulose at the sides; the elytra very coarsely closely punctate from a little below the base to just beyond the middle, the rest of their surface much smoother. Head about as long as the prothorax and (with the eyes) of the same width, foveate or canaliculate on the vertex; antennae (fig. 3) very long, slender, joint 2 small, short, 3 and 4 a little longer, 5 crescentiform, the inner horn of the crescent produced into a long curved tooth, 6 at the apex angularly extended inwards into a still longer, almost straight tooth, 7–11 very elongate. Prothorax as long as or a little longer than broad, narrowed towards the base and apex, convex, the basal margin reflexed. Elytra very long, much wider than the prothorax, rounded at the apex; epipleura very short, without dividing ridge. Terminal ventral segment excavate down the middle.

♀. Antennae short, slender, joints 6–10 subequal in length.

Length 2–3 mm.

Hab. S. Africa, Cape Town and Stellenbosch (*Raffray and Purcell, in Mus. Cape Town*), Camps Bay [type] (*Dr. Marshall*: viii, 1905; *R. E. Turner*: ix, x, 1920), Lion's Head, Ceres (*R. E. Turner*: viii, x, 1920).

Numerous examples seen, including six males varying considerably in size. The ♀ is extremely like the same sex of *Pagurodactylus* (*Attalus*) *lugens* Gorh., from which it may be separated by the unequally punctured elytra and the relatively longer basal joint of the anterior tarsi.

2. Dasytophasis albofasciatus.

♀. *Attalus* (*?*) *albofasciatus* Gorh., Ann. and Mag. Nat. Hist. (5) vii, p. 356 (1901).

♂. Antennae moderately long, slender, joint 5 produced into a curved tooth at the apex within; anterior tarsi slender, simple, the claws small, equal.

♀. Antennae shorter, simple.

Hab. S. Africa, Malvern, Natal.

One ♂, three ♀♀ seen. The ♂ is labelled *A. albofasciatus* in Gorham's handwriting, and he evidently did not observe the dentiform fifth antennal joint, this joint being quite simple in ♀. This species has the elytra fasciate as in *Pagurodactylus* (*Anthocomus*) *coronatus* Boh., differing from that insect in its more slender build and smaller size, the narrow, sulcate, less convex head, the peculiar form of the ♂-antennae, the smoother prothorax, and the shining, strongly punctured elytra, the apical portion of which is much smoother. The tarsal claws are small in the two sexes. The head is long and narrow, as in *P. angustissimus* Pic. The upper surface of the body and the outer edges of the tibiae are set with very long, erect or projecting hairs.

Dasytes.

Dasytes Paykull, Fauna Suecica, ii, p. 156 (1798).

The S. African "*Dasytes*" before me include representatives of three or four genera or subgenera, of two of which one sex only is at present available for examination. It is therefore advisable to leave the thirteen species here enumerated under the one genus *Dasytes* till more material is obtained of some of them.* *D. oncili* Pic, and its allies have the anterior tibiae denticulate externally, much as in the American genus *Trichochrous* Motsch. (= *Pristoscelis* Lec.), these insects having a hairy body like that of *Henicopus* Steph.; *D. costatipennis* Pic, and *D. cribricollis*, have the facies of a *Psilothrix* Redt., and *D. luteopubens* Pic, that of an American *Listrus* Lec. *D. stellatus* will have to be removed to a separate genus when the two sexes are found. *D. caeruleus*, *viridis*, and *rufipes* Thunb. (1821), cannot be identified from the imperfect diagnoses.

1 (10). Tarsal claws with a membranous expansion or appendage reaching to near the apex of the claws.

2 (3). Anterior tibiae more or less denticulate towards the apex externally; body black or submetallic, hirsute, the legs and antennae in part testaceous . Species 1–4.

3 (2). Anterior tibiae narrow, not denticulate.

* It may be noted here that most of, if not all, the numerous described Australian insects referred to *Dasytes* do not belong to the genus, even in the wide sense adopted by European writers.

4 (9). Upper surface with intermixed long, erect or suberect hairs.
5 (8). Elytra with intermixed seriately-arranged smooth tubercles or granules.
6 (7). Species large, brilliantly metallic, resembling *Psilothrix*; legs and antennae metallic or black . . . . Species 5–8.
7 (6). Species small, brassy, legs and antennae in great part testaceous . . . . Species 9.
8 (5). Elytra uniformly rugulose; species small, narrow . . . . . Species 10–13.
9 (4). Upper surface uniformly pubescent, opaque; sculpture very fine, alutaceous; species small, narrow, resembling *Dasytiscus* . . . . . Species 14.
10 (1). Tarsal claws without membranous appendage; species very small, convex, black, shining, elytra bifasciate and stellato-punctate . . . . . Species 15.

1. Dasytes oneili.

Dasytes oneili Pic, L'Echange, xxvii, p. 151 (1907).

♂. Antennae short, very little longer than in ♀, the elytra narrower than in that sex and subparallel in their basal third.

Hab. S. Africa, Bulawayo (*type of Pic; Mus. Cape Town*), Salisbury, S. Rhodesia (*Dr. Marshall*: iv, 1896; iv, 1906); Pretoria (*H. P. Thomasset*) and Sterkfontein, Transvaal (*L. M. Bucknill*).

Found in abundance by Dr. Marshall at Salisbury, on heads of grass. This is one of four extremely closely allied hairy African forms superficially resembling a small *Henicopus*, and mainly distinguishable from the rest by its rather strongly punctured elytra and shining surface. The punctures on the prothorax are coarse and widely scattered. The tibiae and tarsi, and the antennae in great part, are testaceous in all these insects.

2. Dasytes rhodesianus, n. sp.

Moderately elongate, shining, clothed with fine cinereous pubescence intermixed with long, erect, blackish bristly hairs; brassy-black, the elytra with a greenish tinge, the antennae (except at the tip), the femora in part, tibiae, and tarsi rufo-testaceous. Head narrower than the prothorax, very sparsely, finely punctate, deeply

bisulcate anteriorly; antennae short in ♂, still shorter in ♀, thickened outwards, joints 7–10 transverse. Prothorax transverse, convex, rounded at the sides, more or less depressed or sulcate down the middle; sparsely, coarsely punctate, with finer punctures intermixed, the interspaces polished. Elytra not or very little broader than the prothorax, slightly widened posteriorly, conjointly rounded at the apex; densely, very finely punctate, and with scattered, seriately-arranged, smooth granules extending throughout their length, the granules more distinct in some specimens than in others. Anterior tibiae sharply denticulate towards the apex externally.

Length $3\frac{1}{10}$–$4\frac{1}{2}$ mm. (♂♀.)

Hab. S. Africa, Mwengwa, N.W. Rhodesia (*H. E. Dollman*: 2. iv, 1914); Pretoria, Transvaal (*L. M. Bucknill*).

Found in plenty at Mwengwa, and sent singly from Pretoria with a specimen of *D. oneili* Pic, compared with which it is a smaller and narrower insect, and has the elytra densely, very finely punctured and pubescent, thus appearing subopaque. Compared with *D. coriaceus* Gorh., the Rhodesian insect is a little narrower, and has less acuminate more densely punctured elytra.

3. Dasytes nyassanus.

Dasytes nyassanus Pic, L'Echange, xxvii, p. 151 (1911).

Hab. E. Africa, Nyasa (*ex coll. Fry*: ♂♀).

Four specimens from Nyasa, the ♂ imperfect, are probably referable to this species. They are a little smaller and narrower than *D. oneili*, and have the prothorax not quite so sparsely punctured.

4. Dasytes coriaceus.

♀. *Anthocomus* (?) *coriaceus* Gorh., Proc. Zool. Soc. Lond. 1905, ii, p. 275.

Hab. S. Africa, Bothaville, Orange Free State (*Dr. Brauns, in Mus. Cape Town*).

The type of *A. coriaceus* Gorh., ♀, labelled by the author, has been lent me for examination by Dr. Péringuey. It is obvious that the generic name "*Anthocomus*" must have been used in mistake for *Dasytes*, as no *Anthocomus* has the body clothed with very long hairs, or possesses a long membranous appendage to the tarsal claws, as described by Gorham. He omitted, however, to note the asperate, externally denticulate tibiae, this being particularly conspicuous on the anterior pair, the denticles at the apex of

which are clustered together and form an angular prominence at the outer angle. The puncturing of the prothorax is very sparse and coarse, that of the elytra close and fine, with scattered, seriately-arranged, smooth granules intermixed. The tibiae and tarsi, and the antennae, except towards the apex and at the base, are rufo-testaceous. *D. coriaceus* is a small form of *D. oneili* Pic, with the elytra more finely punctured, and in the ♀ more acuminate (or less rounded) at the apex.

5. Dasytes costatipennis.

♀. *Dasytes costatipennis* Pic, Bull. Soc. Ent. Fr., 1910, pp. 53, 54.

"Latus, deplanatus, paulo nitidus, viridescens, supra viridis aut caerulco viridescens; thorace alutacco, mediocriter punctato; elytra costatis, rugulose punctatis, late explanatis.—Long. 4·5–5·5 mm." [Pic.]

♂. Antennae slender, rather long, extending beyond the hind angles of the prothorax; anterior and intermediate tibiae hollowed towards the apex within, and slightly widened thence to the apex; posterior femora strongly, the other femora more feebly, incrassate.

♀. Antennae shorter; tibiae simple; femora more slender.

Hab. S. Africa (*type of Pic*), Clanwilliam, Mooresburg (*Mus. Cape Town*), Malmesbury (*ex coll. Fry*).

Six specimens (4 ♂♂, 2 ♀♀) before me agree fairly well with Pic's diagnosis. They have broadly explanate, feebly costate elytra, the costae each bearing a row of scattered, smooth granules; the prothorax alutaceous and sparsely punctured; the body clothed with long blackish hairs. This species or the following may be synonymous with the S. African *D. caeruleus* or *D. viridis* Thunb. (1821), the diagnoses of which are useless for the purposes of identification. The latter are not referred to by Pic and are both omitted from the "Munich Catalogue."

6. Dasytes cribricollis, n. sp.

♂. Elongate, rather broad, a little widened posteriorly, moderately shining, clothed with a fine scattered greyish pubescence abundantly intermixed with long, blackish, erect, bristly hairs; bluish-green, the antennae and tarsi black; the head and prothorax alutaceous, and closely, strongly punctured, the elytra densely, rather strongly, rugulosely punctate, and with a few, scattered, subseriately-arranged, smooth granules. Head short, longitudinally impressed on each

side anteriorly; antennae short, not reaching beyond the hind angles of the prothorax, slender, subserrate, the apical joint acuminate. Prothorax convex, strongly transverse, rounded at the sides, the margins rather prominent. Elytra wider than the prothorax, subparallel at the base, the margins moderately expanded thence to near the apex. Tibiae straight. Posterior femora very little thicker than the others. Tarsal claws equal, the membranous expansion beneath reaching to near the tip.

Length 4½ mm.

Hab. S. Africa, Oudtshoorn, Cape Colony (*Dr. Brauns, in Mus. Cape Town*).

One male. Smaller and less elongate than *D. costatipennis* Pic, the elytra with less expanded margins, the costae scarcely traceable and the smooth granules almost obsolete, the prothorax closely, coarsely punctate, the ♂ with much shorter antennae, straight tibiae, and feebly incrassate posterior femora. This insect has the general facies of a *Psilothrix*.

7. Dasytes rubrocupreus.

Dasytes rubrocupreus Pic, Bull. Soc. Ent. Fr., 1910, pp. 53, 54.

"Satis latus, subdepressus, nitidus, nigro-viridescens, supra plus minusve rubro-cupreus; thorace alutaceo, sparse punctato; elytris ruguloso-punctatis, granulatis, satis explanatis.—Long. 4–5 mm." [Pic.]

♂. Antennae short, scarcely longer than in ♀; posterior femora moderately incrassate.

Hab. S. Africa, Caledon (*Dr. Péringuey, in Mus. Cape Town*), Caffraria (*type of Pic*).

Dr. Péringuey has sent me a long series of this species for examination. The colour is somewhat variable, especially of the under surface, but most of the specimens are brilliant cupreous above. Compared with *D. costatipennis*, it is a shorter and more convex insect; the antennae are short in both sexes; the prothorax is more narrowly margined; the elytra have less prominent humeri, the costae almost obsolete, and the margins much less dilated; and the tibiae are simple in both sexes.

8. Dasytes coriaceipennis.

Dasytes coriaceipennis Pic, Bull. Soc. Ent. Fr., 1910, pp. 53, 54.

"Elongatus, subdepressus, nigro-caeruleus, supra caerulescens; thorace crebre punctato; elytris coriaceis, mediocre explanatis.—Long. 6–6·3 mm." [Pic.]

♂. Antennae a little longer and legs stouter than in ♀, the femora subequal.

Hab. S. Africa, Stellenbosch and Tulbagh (*Mus. Cape Town*), Ceres, Cape Province (*R. E. Turner*: xi, 1920), Cape of Good Hope (*type of Pic*).

Narrower and more rugose than *D. costatipennis;* the interspaces on the disc of the prothorax smooth and shining; the elytra parallel, depressed along the suture, the seriately-arranged tubercles more prominent and more numerous. The six specimens in the Cape Town Museum are nigro-caeruleous above, those from Ceres brassy. The anterior tibiae and tarsi are sometimes wholly or in part testaceous.

9. Dasytes capensis.

Dasytes capensis Pic, L'Echange, xxiii, p. 133 (1907).

Hab. S. Africa, Dunbrody (*Mus. Cape Town*).

A specimen from Dunbrody in the Cape Town Museum is perhaps referable to this species. It is less elongate and much smaller (length 2½ mm.) than *D. oneili* Pic, brassy in colour, with the legs and antennae more slender and almost entirely testaceous, the elytra with scattered, smooth, seriately-arranged granules intermixed with the rugulose sculpture, the erect hairs very long. *D. rufipes* Thunb. may be an ally of this insect; the diagnosis is as follows—"Caeruleo-aeneus pedibus rufis. Magnitudine *D. nigri* hirtus, violaceo-viridis, pedibus omnibus et totis rufis."

10. Dasytes parallelus, n. sp.

♂. Elongate, somewhat robust, shining, clothed with greyish pubescence intermixed with erect, darker, bristly hairs; brassy-black, the tibiae and tarsi in great part testaceous, the antennae and palpi black; the entire upper surface densely, finely punctured. Head narrower than the prothorax, bisulcate anteriorly, the eyes rather large; antennae moderately long, comparatively stout, a little thickened outwards, joints 7–10 longer than broad. Prothorax broader than long, sinuously narrowed anteriorly, constricted before the apex, and shallowly sulcate down the middle. Elytra long, broader than the prothorax, parallel, with indications of shallow impressed lines on the disc. Legs long, not very slender.

Length 4 mm.

Hab. S. Africa, Table Mountain (*W. Bevins*).

One example. Larger and more robust than *D. opacus* and its allies, the tibiae and tarsi in part testaceous, the elytra parallel. Not unlike the European *D. flavipes* Oliv. This is one of three *Dasytes* found by Mr. Bevins on Table Mountain, and sent to the British Museum in 1906.

11. **Dasytes turneri,** n. sp.

Elongate, narrow, moderately shining, clothed with fine pubescence intermixed with long, semierect, soft hairs; brassy-black, sometimes with a faint cupreous tinge, the antennae, palpi, and legs black; alutaceous, the head and prothorax extremely finely, closely punctate, the elytra densely, transversely, rugulosely punctured. Head narrower than the prothorax; antennae (♂) elongate, rather stout, joints 3 and 4 longer than 2, 6–10 much longer than broad, (♀) shorter and less thickened, joints 3 and 4 slender. Prothorax slightly broader than long, subquadrate, narrowed anteriorly. Elytra elongate, much wider than the prothorax, parallel to beyond the middle, somewhat acuminate at the apex, more strongly so in ♀, the epipleura wanting. Legs slender; tarsal claws with a membranous expansion beneath extending to beyond the middle.

Length 2½–3 mm.

Hab. S. Africa, Ceres [type] (*R. Turner*: xi, 1920: ♂♀), Cape Town (*Mus. Cape Town*), Wynberg (*Dr. Marshall*: xi, 1904: ♀).

Seven specimens, the ♂♂ somewhat injured, the two ♀♀ from Wynberg apparently belonging to the same species.

12. **Dasytes thunbergi,** n. sp.

Extremely like *D. turneri*, but with the upper surface a little smoother and more shining, black, with a greenish lustre; the prothorax rather uneven, somewhat constricted before the apex, thus appearing more narrowed anteriorly; the antennae of ♂ rather stout, shorter, and with joints 6–10 as broad as long, those of ♀ still shorter, and with joints 6–10 transverse; the elytra parallel in ♂, widening to near the apex in ♀.

Length 2½–3¾ mm.

Hab. S. Africa, Cape Town, Stellenbosch, and Grahamstown (*Mus. Cape Town*), Table Mountain (*W. Bevins*).

A long series, ♀♀ predominating. More shining than the insect here referred to *D. opacus* Thumb., the antennae of the ♂ shorter and stouter.

13. Dasytes opacus.

? *Dasytes opacus* Thunb., Nova Acta Soc. Sci. Upsal., viii, p. 174 (1821).

"*D. opacus*: cinereo-olivaceus, subtus niger. Pediculi magnitudine; supra obscurus, olivaceus seu cinereo-virescens; subtus ater, nitidus. Elytra flexilia." [Thunberg.]

♂. Elongate, narrow, depressed, subopaque, thickly clothed with fine greyish pubescence intermixed with rather long, semierect hairs; brassy-black, the head and prothorax dull, alutaceous, densely, finely punctured, the elytra finely rugulosely punctate. Head bisulcate anteriorly and also with a short groove on the vertex, the supra-orbital ridges rather prominent; antennae moderately long, rather stout, joints 5–10 very gradually increasing in length, all longer than broad. Prothorax transverse, narrowed anteriorly. Elytra long, much wider than the prothorax, gradually narrowed from a little below the base.

Length 2½–3 mm.

Hab. S. Africa, Table Mountain (*W. Bevins*), Cape Town (*F. Purcell, in Mus. Cape Town*), Cape of Good Hope (*type of Thunberg*).

Described from three precisely similar males which are provisionally referred to *D. opacus* Thunb. The females may be mixed with those of the variable *D. thunbergi*. This is one of three extremely closely allied S. African *Dasytes* that seem to require distinctive names. The present insect is distinguishable from *D. thunbergi*, ♂, by the longer and less thickened antennae, and the densely punctulate, dull upper surfaces; and from *D. turneri* by the opaque head and prothorax, and the finer and denser sculpure.

14. Dasytes luteopubens.

? *Dasytes luteopubens* Pic, L'Echange, xxvii, p. 151 (1911).

♀. Elongate, narrow, black, opaque, thickly clothed with fine, adpressed, brownish-cinereous pubescence, without longer hairs intermixed; the entire upper surface alutaceous and densely, extremely finely punctured. Head much narrower than the prothorax, subtriangular; antennae rather slender, very short, thickened towards the apex, subserrate, joints 6–10 transverse. Prothorax broader than long, rounded at the sides, narrowed anteriorly and less strongly so towards the base. Elytra very long, much wider than the prothorax, a little widened posteriorly and

acuminate at the apex, without definite epipleura. Legs slender; tarsal claws small, equal, each with a membranous expansion beneath extending to near the tip.

Length 3½ mm.

Hab. S. Africa (*type of Pic*), Grahamstown (*ex coll. Fry*).

The above description is taken from two ♀♀ in the Fry collection. According to Pic, *D. luteopubens* should have a subquadrate prothorax and the pubescence on the disc arranged in a transverse V-shaped line; otherwise the brief diagnosis given by him accords with the insect before me. The small prothorax, long elytra, fine pubescence, and slender legs give it the facies of a *Dasytiscus*, *Listrus*, or *Danacaea*.

15. Dasytes stellatus, n. sp.

Rather convex, short, widened posteriorly, shining, clothed with long, fine, erect or semierect hairs; nigro-piceous, the labrum, basal joints of the antennae (1 excepted), basal margin of the prothorax in one specimen, and two transverse fasciae on the elytra (one before the middle and the other subapical, neither reaching the suture or outer margin), testaceous, the tarsi obscure testaceous; the head and prothorax very sparsely, finely, the elytra more closely, coarsely, punctate, the punctures on the latter angulate or stellate and in one specimen subseriately arranged anteriorly, the interspaces almost smooth. Head short, much narrower than the prothorax, the eyes rather prominent; antennae rather short, joint 3 narrow, 4–11 widened, 4 and 5 triangular, 6–10 strongly transverse, 11 ovate. Prothorax convex, broad, transverse, rounded at the sides, narrowed anteriorly, the basal margin raised. Elytra at the base slightly wider than the prothorax, widening to near the apex, the apex itself rounded. Legs slender; tarsi simple, the claws equal, without appendages beneath, a little widened at the base.

Length 2 mm. (♀ ?).

Hab. S. Africa, Malvern, Natal (*Mus. Durban and Mus. Cape Town*: 15, viii, 1902).

Three specimens. A very small, shining, hairy, rather convex, black insect, with bifasciate, rather coarsely stellato-punctate elytra, a short prothorax, slender legs, and non-appendiculate tarsal claws. The apical joint of the maxillary palpi is slender, fusiform. Till the sexes are identified, it must remain under *Dasytes*, a genus at present including many heterogeneous forms.

Calosotis.

Calosotis Redtenbacher, Reise Novara, ii, p. 106 (1867).

Dr. Holdhaus has been kind enough to present a co-type of the S. African *C. sctulosa* Redt., the type of the genus, to the British Museum. It is nearly related to *Dasytiscus* Kies., differing therefrom in having the antennae very short and obliquely serrate; the anterior and intermediate tibiae armed with a rather long, stout spur at the inner apical angle (somewhat incorrectly described as "calcare cochlaeaformi" by Redtenbacher); the tarsal joints 1–4 simple, short, and equal in width (1–3 are widened and 4 small in *Dasytiscus*); the claws small, equal, and furnished with a connate membranous appendage beneath; the upper surface of the body clothed with numerous, erect bristly hairs intermixed with the fine greyish pubescence. Length $2\frac{1}{3}$ mm.

No such insect has been found in the Cape Town Museum or in the extensive collections recently made in the same region by Mr. R. E. Turner; and it is probable that some mistake was made regarding the locality given, "Vorgebirge." The stout tibial spurs may be peculiar to the ♂?. *C. barkeri* Pic (1904), from Natal, has been referred by me to *Hapalochrus*.

Apterodasytes, n. gen.

Antennae inserted at some distance before the eyes, 11-jointed, slender; terminal joint of the maxillary and labial palpi narrow, subfusiform; mandibles stout, acute at tip, toothed at the apex beneath; labrum small; head simple, not wider than the prothorax, the epistoma confused with the front; prothorax subcylindrical; scutellum very small; elytra extremely short, not longer than the pronotum, leaving six abdominal segments exposed; tibiae narrow; tarsi clearly 5-jointed, simple, the claws short, small, equal, furnished with a membranous appendage beneath which nearly reaches the apex of the claw; wings wanting; body elongate, narrow, hairy, staphyliniform.

Type, *A. staphylinoides*.

The single species referred to *Apterodasytes* bears a remarkable resemblance to the Omaliid-genera *Arpedium* and *Micralymma*. The two sexes have not been identified; but as there is some variation in the length of the antennae in the specimens before me, it is possible that both ♂ and ♀ are represented. The elytra are not longer than the

prothorax, and are much shorter than in any described species of the Malachiid genera *Carphurus* and *Helcogaster*.

1. **Apterodasytes staphylinoides**, n. sp. (Fig. 4.)

Black, shining, the antennae in part or almost wholly, tibiae, and tarsi testaceous or obscure testaceous; sparsely clothed with long, erect, blackish hairs which on the elytra and abdomen are intermixed with an abundant, adpressed, rather long, cinereous pubescence; the head and prothorax very sparsely, the elytra and abdomen densely, rugulosely punctate, the punctures on the elytra rather coarse. Head moderately long, deeply longitudinally sulcate on each side anteriorly; antennae rather short, joints 9–11 perceptibly wider than those preceding, 9 and 10 about as long as broad, 11 ovate. Prothorax convex, as long as broad, narrowed towards the base and apex and deeply, transversely furrowed behind the anterior margin. Elytra at the base narrower than the prothorax, rapidly widening to the apex, obliquely truncate behind. Abdomen as long as or longer than the rest of the body, widening to beyond the middle, somewhat pointed at the tip. Legs moderately slender.

Length $2\frac{1}{5}$–$3\frac{1}{2}$ mm.

Hab. S. Africa, Prince Albert (*Dr. Purcell, Mus. Cape Town*).

Six specimens.

Alphabetical numbered List of Species enumerated in this Paper.

The generic names in brackets abbreviated thus: *P.*=*Pagurodactylus*, *Dasytoph.*=*Dasytophasis*, *D.*=*Dasytes*, *A.*=*Apterodasytes*; those marked with an asterisk are described as new.

albofasciatus (*Dasytoph.*), 2.
**angulatus* (*P.*), 17.
angustissimus (*P.*), 21.
**angustulus* (*P.*), 4.
capensis (*D.*), 9.
**capicola* (*Dasytoph.*), 1.
**cephalotes* (*P.*), 13.
circumcinctus (*P.*), 7.
coriaceipennis (*D.*), 8.
coriaceus (*D.*), 4.
coronatus (*P.*), 9.
costatipennis (*D.*), 5.
**cribricollis* (*D.*), 6.
**cribrosus* (*P.*), 3.
**debilis* (*P.*), 16.
disjunctus (*P.*), 20.
**fenestratus* (*P.*), 18.
**fibulatus* (*P.*), 1.
**flavocinctus* (*P.*), 11.
**flavosignatus* (*P.*), 12.
**funereus* (*P.*), 5.
lugens (*P.*), 6.
luteopubens (*D.*), 14.
marginipennis (*P.*), 14.
**masaicus* (*P.*), 23.
**metallicus* (*P.*), 19.

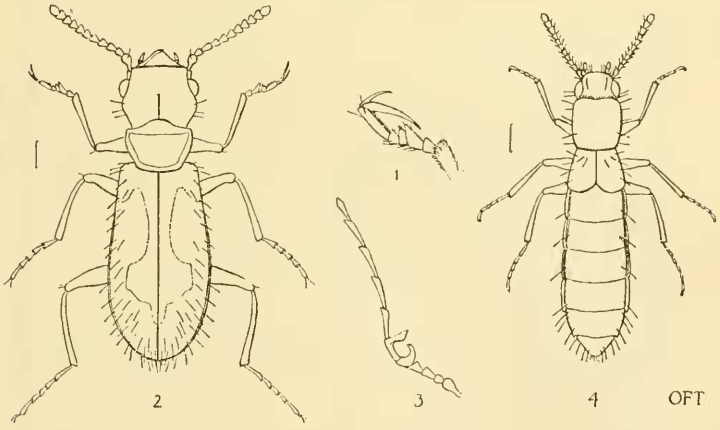
**nigrosetosus* (*P.*), 15.
nyassanus (*D.*), 3.
oneili (*D.*), 1.
opacus (*D.*), 13.
**parallelus* (*D.*), 10.
**rhodesianus* (*D.*), 2.
**rostralis* (*P.*), 22.
rubrocupreus (*D.*), 7.
**staphylinoides* (*A.*), 1.
**stellatus* (*D.*), 15.
**suturellus* (*P.*), 8.
**thunbergi* (*D.*), 12.
**translucidus* (*P.*), 10.
**turneri* (*D.*), 11.
vitticeps (*P.*), 2.

SYNONYM.

apicalis (*P.*), 20.

SPECIES NOT IDENTIFIED OR NOT SEPARATELY ENUMERATED.

caeruleus (*Dasytes*), p. 386.
donceeli (*Pagurodactylus*), p. 367.
nigerrimus (*Pseudopecteropus*), p. 367.
obscurus (*Xamerpus*), p. 367.
pallidonotatus (*Pseudopecteropus*), p. 367.
rufipes (*Dasytes*), p. 386.
setulosa (*Calosotis*), p. 395.
subconvexus v. *nigricolor* (*Microjulistus*), p. 367.
viridis (*Dasytes*), p. 386.



EXPLANATION OF FIGURES.

FIG. 1. *Pagurodactylus fibulatus*, ♂, anterior tarsus and claws.
2. „ *cephalotes*, ♂.
3. *Dasytophasis capicola* ♂, antenna.
4. *Apterodasytes staphylinoides*.